

“Devonshire Coast.” On the other hand, several of the chapters (or Letters as our author calls them) contain excellent descriptions of things, which although previously well known to zoologists, will undoubtedly be exceedingly interesting to the general reader, in the elegant costume in which they are here presented to him. Amongst these we may notice the development of the Decapod Crustacea and Barnacles, of *Clavellina* and the *Echinida*. One chapter is devoted to the description of the *Pedicellariæ*, which Mr. Gosse, with the principal authorities of the present day, regards as component parts of the Echinoderms on whose surface they are found; our author gives a very full description of the structure of these curious bodies, and besides the three kinds or species described by Müller, notices a fourth form, to which he gives the name of *Pedicellaria stenophylla*. The *Actinæ* and their beauties naturally take up a good deal of Mr. Gosse’s attention,—they are frequently referred to in various parts of the work, and three new species are described in his last letter; whilst in an Appendix he gives some extracts from his paper on *Peachia hastata* in the Linnæan Transactions, in which he establishes the genera *Sagartia* and *Bunodes* at the expense of the old genus *Actinia*, and gives his views as to the nature and affinities of the family of the Sea Anemones.

Mr. Gosse is, however, by no means constant in his attachment to the sea, and two of his letters are devoted exclusively to the fresh-water *Rotifera*;—in one he describes the mode of capturing these little creatures, and in the second the way in which they are to be observed under the microscope, and the structure of several striking species.

Two circumstances must prevent our giving any extracts from this charming little book,—one of these is the difficulty of selection where so much is excellent, and the other the want of space. In taking leave of it, however, we cannot but feel that it will do much to open up new sources of delight to thousands who may visit not only Tenby but other watering-places, by awakening in their minds some little interest in the many apparently insignificant, but truly interesting creatures, which they would otherwise pass contemptuously in their objectless saunterings by the sea. We may add that the work is illustrated with twenty-four coloured lithographic plates, executed by the author, most of which are exceedingly good.

Manual of British Botany, containing the Flowering Plants and Ferns arranged according to the Natural Orders. By CHARLES CARDALE BABINGTON, M.A., F.R.S., F.L.S. &c. Fourth Edition, with many additions and corrections. London: Van Voorst, 1856, pp. 446.

An examination of Mr. Babington’s fourth edition suggests little that we have not already said, still less that we might not have said, respecting its predecessor. The countless silent rectifications of diagnosis, which give Mr. Babington’s writings their chief value, will hardly be appreciated except by assiduous use; but the marks of

unwearied observation of living nature and familiarity with the published and unpublished researches of contemporary botanists up to the latest moment are obvious to any reader. The only new feature of this edition is an attempt to introduce all *bonâ fide* English names, excluding those uncouth Anglo-Latin titles which sound like fond reminiscences of pre-Linnæan nomenclature. Mr. Babington has advanced a little—we wish it had been more—towards distinguishing undoubted and little doubted natives from suspected intruders of all kinds. Some species formerly at liberty are now bracketed; others bracketed with numbers are now bracketed without numbers; others are absolutely rejected. The notation, however, is in this respect somewhat ambiguous and inconsistent. A few probably new species, about which the author has not yet quite made up his mind, are neither excluded nor admitted to full citizenship, but wisely introduced on a doubtful footing: *Utricularia neglecta* and *Potamogeton gracilis* may be taken as examples. The disagreeable but necessary work of correcting the synonyms goes on as before, the result in some cases being the restoration of old names; thus *Myosotis suaveolens* is now once more *alpestris*. Little can be objected against these proceedings except their piecemeal nature. A fearless and thorough revision of the names of our plants on definite principles, whether those of the British Association or others, is much wanted. Mr. Babington did good service in this department in the early part of his career: it is to be wished that he would return to it with increased knowledge on a more methodical plan than he has lately followed. This desultoriness is perhaps not confined to nomenclature. Mr. Babington's observations, extensive and minute as they are, appear to have been too much confined to such plants as have accidentally fallen in his way. For instance, he long ago described, on rather slender evidence, a *Potamogeton* allied to *P. pectinatus* as probably the *P. zosteraceus* of Fries. In his third edition, having become better acquainted with the plant, he named it anew as *P. flabellatus*, at the same time distinguishing *P. pectinatus* in italics as having "leaves formed of two interrupted tubes." This language might surely be too easily taken to mean that the leaves of *P. pectinatus* differ essentially in structure from the upper leaves of *P. flabellatus*. Mr. Babington is of course too good a botanist not to have known, that in plants so closely allied the difference (if such there be) could only be one of proportion, as the leaves of neighbouring species are likewise formed of "interrupted tubes," and the peculiarity of *P. pectinatus* can lie only in the predominance of two over the rest. But though the ambiguity of 1851 may be excused by the want of adequate knowledge of the corresponding structure in *P. flabellatus*, it was surely incumbent on the author of a Flora to have studied his own species a little further before 1856, and not to leave the description as deceptive as ever, especially as Hooker and Arnott had meanwhile challenged the distinctness of the species on definite grounds. Many of the important changes of detail now introduced into the 'Manual' are already known to our readers through the monographs which the author has lately published

in this Journal. A great part of them will, we are confident, maintain their ground with, it may be, a few modifications. Others unavoidably excite our scepticism; but, until arguments are adduced on the other side, founded on something like equally cautious and intelligent study, Mr. Babington has a fair right to claim a strong provisional authority. If any one starts, as assuredly he ought to do, at being told that *Arctium majus* and *minus* constitute five species, we can only counsel patience and renewed observation. A large proportion of the novelties occur in the genus *Hieracium*, where the pains bestowed by Mr. Backhouse on the cultivation of doubtful forms supply an excellent check on hasty conclusions in either direction. We should not omit to notice the arrangement of the Grasses, which has been greatly improved, chiefly from Fries and Andersson.

Species introduced or separated in the 4th edition.

Ranunculus trichophyllus, <i>Chaix.</i>	Hieracium senescens, <i>Backh.</i>
R. Drouetii, <i>F. Schultz?</i>	H. lasiophyllum, <i>Koch.</i>
R. Baudotii, <i>Godr.</i>	H. Gibsoni, <i>Backh.</i>
R. floribundus, <i>Bab.</i>	H. argenteum, <i>Fr.</i>
R. peltatus, <i>Fr.</i>	H. nitidum, <i>Backh.</i>
Polygala austriaca, <i>Cr.</i>	H. aggregatum, <i>Backh.</i>
[<i>Sagina densa, Jord.</i>]	H. stelligerum, <i>Froel.</i>
Hypericum anglicum, <i>Bert.</i>	Thymus Serpyllum, <i>L.</i>
Rubus pampinosus, <i>Lees.</i>	†Salix acutifolia, <i>Willd.</i>
Epilobium rosmarinifolium, <i>Haenke.</i>	Orehis incarnata, <i>L.</i>
E. anagallidifolium, <i>Lam.</i>	Epipogium aphyllum, <i>Sw.</i>
Galium montanum, <i>Vill.</i>	Arum italicum, <i>Mill.</i>
G. commutatum, <i>Jord.</i>	[Potamogeton sparganiifolius, <i>Laest.?</i>]
G. elongatum, <i>Presl.</i>	[Eleocharis Watsoni, <i>Bab.</i>]
Arctium tomentosum, <i>Pers.</i>	Festuca Myurus, <i>L.</i>
A. intermedium, <i>Lange.</i>	Equisetum Moorii, <i>Newm.</i>
A. pubens, <i>Bab.</i>	Pseudathyrium alpestre, <i>Newm.</i>
Hieracium holosericeum, <i>Backh.</i>	? P. flexile, <i>Newm.</i>
H. eximium, <i>Backh.</i>	? Asplenium acutum, <i>Bory.</i>
H. calenduliflorum, <i>Backh.</i>	[Gymnogramma leptophylla, <i>Desv.</i>]
H. gracilentum, <i>Backh.</i>	? [Botrychium rutaceum, <i>Sw.</i>]
H. globosum, <i>Backh.</i>	? [Ophioglossum lusitanicum, <i>L.</i>]

Species omitted in the 4th edition.

Thalictrum majus.	Hieracium anglicum.
Rubus calvatus.	[H. oreades.]
R. fuscus.	H. dovreense.
R. Wahlbergii.	Salix Helix.
Hieracium atratum.	S. Forbyana.

Trees and their Nature, or the Bud and its Attributes. By ALEX. HARVEY, A.M., M.D. &c. London, 1856.

This is an amusing little volume, displaying a great deal of acuteness, and the results of very careful reading within a limited sphere. The object of the work is the discussion of the vexed question of